USER MANUAL

Netti 4U Comfort CE/CES PLUS

ALU_REHAB™

Thinking ahead – moving forward

CE This product conforms to 93/42/EEC for medical products.

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1. INTRODUCTION

Netti 4U comfort|CE/CES PLUS is a comfort wheelchair meant for both indoor and outdoor use. It is tested to DIN EN 12183:2009. The tests were carried out by TÜV SÜD Product Service GmbH in German

In Alu Rehab we believe that wheelchairs should be chosen based on a thorough assessment focusing on the needs of the user and demands from the environment. Therefore it is important to know about the possibilities and restrictions of the wheelchair. Netti 4U comfort|CE/CES PLUS is a wheelchair designed for users with the need for comfort and relief. The combination between the seating system and the ergonomical solutions in the frame construction, offers many possibilities for adaptation and adjustments.

The wheelchair is constructed for indoor and outdoor use, and offers the possibility to vary the sitting position from activity to rest using tilt and recline functions.

Max user weight: 135 kg.

⚠ **When mounting accessories such as power kit etc, the weight of the accessories must be subtracted from the max user weight.**

ⓘ **Specifications varies between countries.**

1.1 Areas of use/indications Netti 4U comfort|CE/CES PLUS

Netti 4U comfort|CE/CES PLUS is a multi-function wheelchair for partially or fully immobile persons with physical and/or mental disabilities. These disabilities may have multiple causes. Netti 4U comfort|CE/CES PLUS has an adjustable seat and back angle, thus facilitating for the user change of position, mobilisation or posture correction (stabilisation), wherever the following functional impediments with their multiple possible causes are present:

- limited or lacking mobility
- limited or lacking muscle power
- limited movement range
- lacking or limited trunk and body stability
- hemiplegia
- rheumatic-type disorders
- craniocerebral injuries
- amputations
- other neurological or geriatric disorders.

1.2 Contraindications

Netti 4U comfort|CE/CES PLUS is not suited for persons with a strongly enhanced muscular spasticity. In this case we recommend the Netti III, which offers a version with reinforced frame and leg rests for this particular need. Ignoring this advice could in unfavourable circumstances lead to the deformation or fracture of metal parts in the area of the back tube, the leg rests or the arm rests

1.3 Quality and durability

The Netti 4U comfort|CE/CES PLUS wheelchair is tested at TÜV SÜD Product Service GmbH in Germany, following the European Standard DIN EN 12183:2009. As manufacturer, Alu Rehab A.S evaluates the test to be equal to 5-6 years of normal use of the chair. The disability of the user as well as the level of maintenance done foremost decides the durability of the wheelchair. Thus, the durability will vary depending on these two factors.

This product conforms to SFS 1993:584 Lagen om medicintekniska produkter

This product conforms to LVFS 2003:11 Läkemedelsverkets föreskrifter om medicintekniska produkter, klass I

1.4 The environment and waste disposal

Alu Rehab and its suppliers wish to protect the environment. This means:

- That we avoid using environmentally harmful substances and processes to the greatest extent possible.
- That Alu Rehab's products are ensured a long service life and a high degree of flexibility - to benefit the environment and economy.
- That all packaging can be recycled.
- That the wheelchair was designed to be separated into its component materials - to make recycling easier.

Contact your local recycling agent to get correct information how to handle in you area.

1.5 Information for re-use

All products from Alu Rehab are designed to give years of maintenance-free service. All products can be adapted for re-use by an authorised dealer. In order to guarantee performance and safety, Alu Rehab recommends the following tests prior to any re-use.

Please examine the following components for function, integrity etc. and replace parts as necessary:

- Wheels (tyre tread)
- Wheelchair frame
- Cushions
- Hubs
- Brake function
- Headset bearings: test for wear lubrication
- Directional stability of wheels
- Bearings

Please also note the content of chapter 9.2 Cleaning and washing

Anti-tip

Correctly fitted, the anti-tip will secure the chair from tipping backwards. We strongly recommend use of the anti-tips.

1.6 About this manual

In order to avoid damages while using the Netti 4U comfort|CE/CES PLUS wheelchair, please read this manual carefully before starting to use the chair.

Symbol of forbidden actions. No warranty can be claimed whenever these actions are implemented.

Symbol of warning. Whenever this symbol is used, caution has to be taken.

Symbol for important information.

Symbol for useful tips.

Symbol for tools.

1.7 Vital measures

Netti 4U comfort|CE/CES PLUS is a comfort wheelchair designed for both outdoor and indoor use.

Specifications varies between countries.

Total weight: 28,5 Kg

(450 mm width chair)

Seat width:

350, 400, 450, 500 mm

Seat depth:

(From back rest cushion to front of seat plate)

425, 450, 475 and 500mm
375, 420, 425 and 450mm

Seat height:

(From floor to top seat plate using 24" main wheels in upper hole position).

465 mm*

*By changing position of main wheels, it is possible to achieve seat height of 500 mm.

Backrest height:

500 mm*

*Using back rest extender gives 600 mm

2. QUICK REFERENCE

The content of this page is a summary of the whole manual. It gives a brief introduction to the use and care of the Netti 4U comfort|CE/CES PLUS wheelchair.

⚠ **The quick reference is not a replacement for the manual, only a reminder/check list.**

- Unpack the wheelchair (Chapter 6.1)
- Mount the main wheels (Chapter 6.2)
- Mount the front castors (Chapter 6.3)
- Put the back rest back, and mount the recline gas strut to the back rest using the locking bolt. (Chapter 6.5)
- Mount the seat cushion (Chapter 6.9)
- Mount the foot supports (Chapter 6.10)
- Mount the head support (Chapter 6.11)
- Set anti-tip in active position (Chapter 6.7)
- Mount accessory. (See chapter 5 for more information. Mounting descriptions will accompany the accessory.)

ⓘ **For troubleshooting, see chapter 10. For mounting and adjustments see chapter 6.**

⚠ **Drive carefully!**

⚠ **Be aware that friction against push rims can create a warm surface.**

⚠ **Salt water can increase risk of corrosion. Further precautions related to environmental conditions not needed.**

⚠ **When the chair is tilted rearwards, the anti tips and brakes should always be in use.**

⚠ **Be sure to lock all handles properly.**

⚠ **The anti-tips should always be used for the safety of the user.**

⚠ **Surface temperature of metal parts in frame structure might increase when exposed to direct sunlight.**

⚠ **Never stand on the foot supports due to risk of tipping forwards.**

⚠ **Never lift the wheelchair by the foot supports or arm supports.**

ⓘ **Product configuration may vary between different countries.**

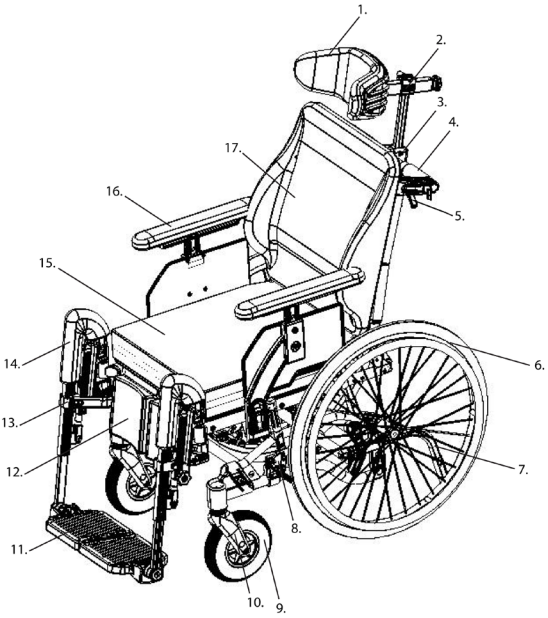
ⓘ **For visually impaired people, manuals and catalogues can be downloaded at www.alurehab.com**

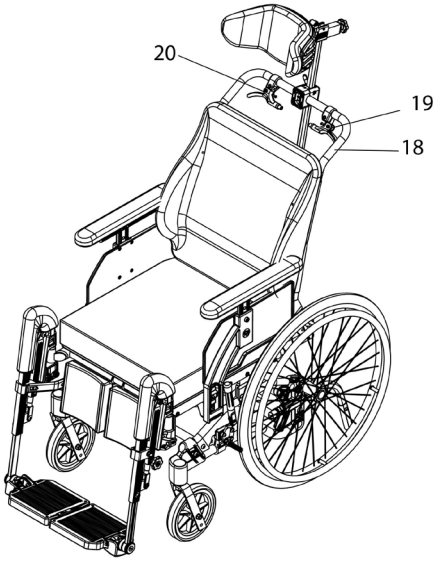
If in doubt - contact your dealer!

3. DESCRIPTION

Standard version*

1. Head support
2. Angle and depth adjustment for head support
3. Head support bracket
4. Push bow
5. Release handle
6. Main wheel
7. Anti tip
8. Brakes
9. Front castors
10. Front fork
11. Foot plate
12. Calf support
13. Calf support bracket
14. Angle adjustable foot support
15. Seat cushion
16. Arm support with pad
17. Back cushion
18. Push bow shaped tube
19. Release handle Tilt
20. Release handle Back





If any of these parts are missing, please contact your dealer.

*** Product configuration may vary between different countries.**

4. FEATURES OF NETTI 4U comfort|CE/CES PLUS

Standard

SEAT
- Pressure distributive cushion
- Tilt -5° to +20°
- Adjustable depth of 7.5 cm

WHEELS
- 24 x 1 3/8" puncture proof main wheels with quick release axle
- Push rim: Aluminium
- 7" Puncture proof front castors with quick release axle

*** Standard main wheels may vary between countries.**

BACKREST
- Angle: 90° to 135°
- Height: 50 cm
- Netti|Uno Back
- Push handles or
- Push bow

FOOT SUPPORT
- Universal or Angle adjustable foot support
- Height- and angle adjustable foot plates
- Removable

ARM SUPPORT
- Height adjustable
- Removable

HEAD SUPPORT
- Height, depth and angle adjustable
- Removable

Accessories

SEAT
- Pressure distributive cushions

WHEELS
- Puncture proof PU wheels 12", 16" and 24x1" with drumbrake (See chapter 5)
- Puncture proof PU 22 x 1" & 24 x 1"
- 6" & 7" puncture proof front castors with quick release axle
- Pneumatic wheels

BACKREST
- Back rest extender (See chapter 5)
- Lumbar support and wedge (See chapter 5)
- Different backrest cushions

FOOT SUPPORT
- Amputation support
- Upholstery for foot supports

ARM SUPPORT
- Hemi cushions (See chapter 5)

HEAD SUPPORT
- Different head support models (See chapter 5)

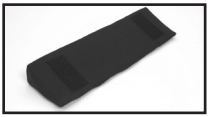
5. Accessories

Belts
Several variants: Hip belts with or without upholstery and with plastic lock or car lock. (See chapter 5.1 for mounting)

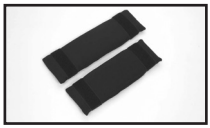
Trays
2 models: Swing-able and lockable

Upholstery for tray
Offers a soft base for the arm resting on the tray.

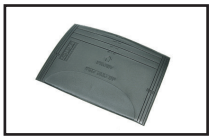
Wedge
Increases side support.



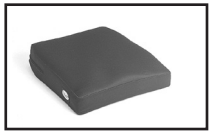
Lumbar support
Increases lumbar curvature.



Vital Base Integral
Pelvic stabilizer.



Seat Cushions
Many to choose from. Please contact your dealer.



Arm support height adjustment by star wheel

Backrest Cushions
Many to choose from. Please contact your dealer.

Spoke protectors
For 20", 22" and 24". Black or transparent is optional.

Foot box
Upholstered

Foot supports:

Angle adjustable

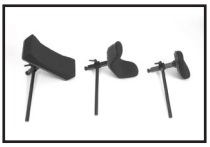
Universal
Adjustable in fixed positions between 33° to 105° using an adjustment wheel.

Amputation support

Upholstery for calf support bracket
Reduces pressure.

Arm pad depth adjustment
by operating screw wheels

Head support
Support C Large.
Support A Side support
Support B Small



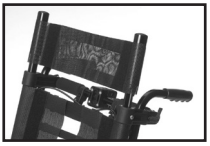
Hygiene cover
Protects the core of the head support.

Head cushion
40x40 cm cushion with Kospoflex filling and rubber band.

Head cushion Comfort
Cushion with Kospoflex filling to pull onto head rest.

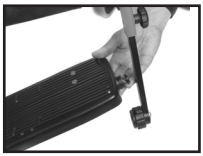
Hemi cushion
An accommodating support for hemiplegic users.

Backrest extender
12 cm extender.
To be used together with 60 cm back rest cushion.



Main wheels
12", 16" and
24" with drumbrake

Foot board with lock
The foot support can be swung to the side like standard foot supports.



Side support Correction
Meant for correction of bad postures in the upper trunk.

Pad for side support Correction

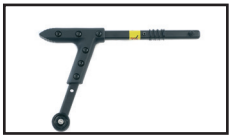
Side support Stable
Meant for users with decreased stability of the upper trunk. For otimal function use together with Stable cushion.

Pad for side support Stable

Calf pad hinged
The user doesn't have to lift the leg when mounting or dismounting the foot supports.

Abduction block
The block reduces abduction.
Small: 80 mm width
Medium: 120 mm width
Large: 140 mm width

Anti tip
Anti tip with tramp pedal

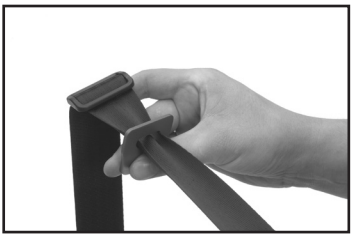


Tool set

5.1 Assembling of hip belt

Illustration 5.1.1

- Pull the belt through the hole in the hip belt bracket.



Ill. 5.1.1

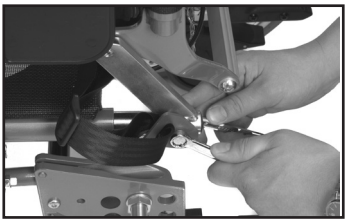
Illustration 5.1.2

- Thread the belt back through the belt clamp.

Ill. 5.1.2

Illustration 5.1.3

- Fix the hip belt bracket to the back rest hinge in the rearmost hole, using the enclosed screws and nuts.



Ill. 5.1.3

2pcs 13 mm open-end spanner.

5.2 Mounting of H-Belt bar

Picture 1.

- Remove the push handles, and pull the H-belt attachment bar onto the push handles from the lower end.

Picture1.

- Fix the push handles in correct position and lock firmly. Then fix the bar at the right position/height. The height should be level with the shoulders of the user.

Picture 2.

Picture 3.

- Thread the belt through the rolls and lock the belt by pulling the belt through the belt clamp. Adjust to the requested length of belt.

Picture 3.

6. ASSEMBLY AND ADJUSTMENT

6.1 Unpacking

1. Unpack all the parts, and check that everything is there according to the packing list.
2. Mount the main wheels (Chapter 6.2)
3. Mount the front castors (Chapter 6.3)
4. Check and adjust the seat dept (Chap. 6.7)
5. Mount the back rest (Chapter 6.5)
6. Mount the seat cushion (Chapter 6.9)
7. Mount the foot supports (Chapter 6.10)
8. Mount the head support (Chapter 6.11)
9. Mount any accessories (Chapter 5).

Weight of components (45 cm width chair):
Main wheels: 1,9 kg each
Anti tip: 0,1 kg each
Front castors: 0,8 kg each
Foot support angle adj.: 2 kg each
Seat cushion: App. 1 kg
Head support A: 1 kg
Head support C: 0,9 kg

6.2 Main wheel

To mount the main wheel remove the quick release bolt from the hub bushing, lead it through the centre of the main wheel and into the hub bushing while pressing the knob in center.

⚠ **To check that the main wheel is properly attached to the hub, remove the finger from the central knob and pull at the main wheel.**

⚠ **If the main wheel doesn't lock, don't use the wheelchair but contact your dealer.**

⚠ **Sand and sea water (salt used for gritting in the winter) can damage the bearings of the main wheels and front castors. Clean the wheelchair thoroughly after exposure**

6.3 Front castors

To take off

- Press the release button under the front fork.

To mount

- Lead the quick release axle into the bearing house. Pull the fork slightly to ensure that the fork is fully locked.

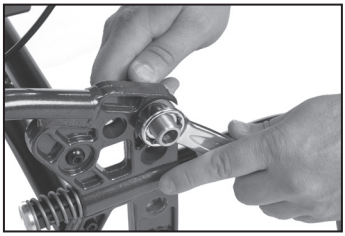
6.4. Seat height adjustment

The seat height at the rear depends on:

- Size of main wheel.
- Position of main wheel.

- Using 24" main wheels in the upper hole, the seat height is 46.5 cm from the floor to the seating plate. Using 24" main wheels in the next upper position, the height will measure 50 cm to the seating plate.

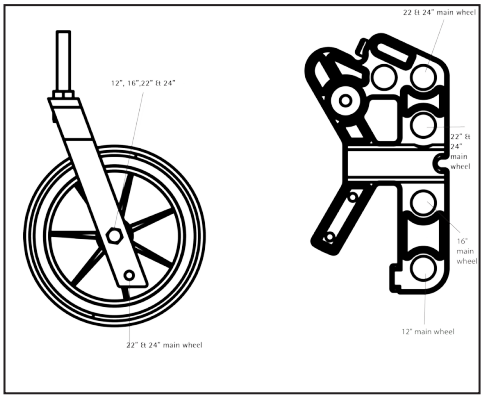
If it is required to change position of the main wheels or to change to a different size of main wheels, unfix the hub bushing including washer and nut. Remove the hub bushing and mount it in the required position.



2 pcs **24 mm open-end spanners**

Make sure that the nut on inside of frame totally wreathes the wheel bushing.

Main wheels and front castors should be mounted according to the description below.



When the seat height is changed ensure that the front castors are placed so that the lower frame tube is parallel with the ground.

Check the position of the anti tip and readjust the brakes after mounting the main wheels or changing the main wheel position.

6.5 Backrest

- To mount the gas spring, lift the push bow with one hand, and lead the gas spring locking head into the plastic bracket with the other (Ill. 6.5.1).
- Check that the hole in the locking head is parallel with the open holes in the plastic bracket.

Ill. 6.5.1

- Lock the backrest by pushing the locking bolt through the plastic bracket and gas spring locking head (Ill. 6.5.2.)

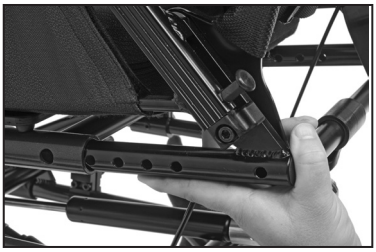
Ill. 6.5.2

⚠ **To check that the back rest is locked, grip the push bow and press the back rest forward. If the back rest falls forward - repeat the locking procedure or contact your local dealer.**

- The wheelchair is set to a standard seat depth, and the plastic bracket has 4 holes of which three are temporarily blocked with plastic plugs (Ill. 6.5.3)

Ill. 6.5.3.

- The back rest hinge has 4 holes (Ill. 6.5.4) The hole positions are in accordance with the holes in the plastic bracket. If the locking head of the gas spring is mounted in the inner hole of the plastic bracket, the back rest hinge should also be mounted in the inner hole etc.



Ill. 6.5.4

6.6 Backrest cushions

Backrest cushions are fixed and adjusted onto the wheelchair using the velcro.

The backrest comes with a one piece velcro back as standard.

Backrest cushions are attached with a velcro system.

It is imperative to correctly set-up the cushion in order to ensure good seating comfort

The cushion covers are washable and thereby reuseable. Follow the instruction on the back of the cushion for correct maintenance and washing of the cushion.

6.7 Seat depth adjustment

- If the seat depth should be adjusted at the rear, loosen the locking bolt in the plastic bracket (Ill. 6.5.2.).
- Find the required position for the locking head in the plastic bracket, and remove the plastic plug from this hole.
- Lock the back rest by pushing the locking bolt through the plastic bracket and the gas spring locking head.
- After changing the hole position in the plastic bracket, the hole position in the back rest hinge must be changed into the parallel position.

Check that the hole in the back rest hinge and the plastic bracket are mounted into the same hole position.

6 mm Allen-key

6.8 Anti tip

The anti tips should be mounted according to the mounting description which is enclosed with the chair upon arrival.

Use of the anti tip

- Pull the anti tip out
- Turn it up or down 180°.
- Lock it in position

Adjusting the height of the anti tip

The anti tip can be adjusted in to fixed positions. The short position is for 12" & 16" main wheels and 24" in upper position. The long position is for 24" main wheels in lower position.

- Unfix the screw in the adjustable extension piece as shown in picture below.
- This extension piece has two holes. Place it in the required position and tighten the screw.

5 mm Allen key

The anti tip should always be used for the safety of the user.

6.9 Seat cushion

The seat cushion is fixed on the wheelchair with velcro.

It is very important to place the cushion in the wheelchair before use.

The cushion cover is washable and reusable. Follow the instruction on the back of the cushion for correct maintance and washing of the cushion.

6.10 Foot supports

Netti 4U comfort |CE Plus can be delivered with either Universal or Angle Adjustable foot support.

Universal foot support

The Universal foot support is fixed with the possibility of angle adjustment. It is swingable and removable. The foot plates are foldable and can be angled in fixed positions. Delivered with height and depth adjustable calf support.

Angle adjustable foot support

The angle adjustable foot support is freely adjustable in angle. It is swingable and removeable. The foot plates are foldable

and can be angles in fixed positions. Delivered with height and depth adjustable calf support.

Mounting of foot support

- Mount the foot support by holding onto the blue bar bending down towards the footplate. Hold it in an angle of app. 20° to the side frame. Put it into the black plastic lock attached to the extractable adjustment bar. Swing it in and push down (Ill. 6.9.1.)

Ill. 6.9.1

Adjusting the angle - Universal foot support

- The angle of the foot support can be adjusted using the star wheel in center of the hinge point (Ill. 6.9.2).
- Loosening this star wheel enables you to adjust the foot support to the required angle.
- Fix the angle by tightening the star screw.

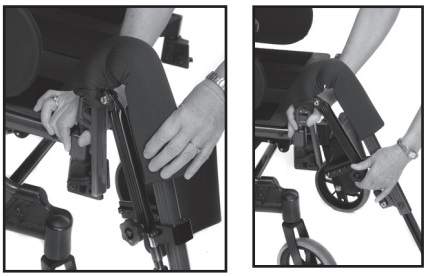
Ill. 6.9.2

Adjusting the angle - Angle adjustable foot support

- The angle of the foot support can be adjusted using the star wheel in Ill. 6.9.3.
- Loosening this star wheel enables you to adjust the foot support to the required angle.
- Fix the angle by tightening the star wheel.

Ill. 6.9.3

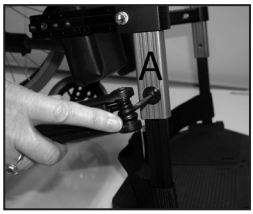
⚠ **Squeeze hazard. When adjusting foot supports in angle, do not put the fingers in the adjusting mechanism between the moving parts.**



Ill. 6.9.4

Adjusting the length of the foot support

- Untighten the screw (A ill. next page) to make the adjustment tube move
- Adjust the foot support in required position and fix the screw properly.

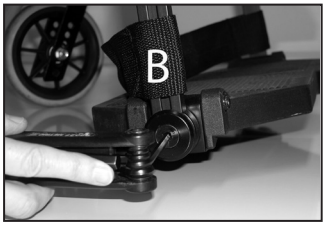


Ill.6.9.5

Adjusting the angle of the footplate

- The foot plates can be adjusted in angle.
- Untighten the screw (B) and adjust the foot plate to the required angle. Fix the screw properly.

5 mm Allen key



Ill. 6.9.6

Locking and releasing the foot plates

- The foot plates come with a locking bolt which makes the plates stronger
- To lock the foot plates pull the plastic lock on the right foot plate and place the lock over the bolt on the left foot plate.
- To release the foot plate pull the plastic lock and lift the right foot plate up.

For outdoor use, there should be a clearance of 4-5 cm between the foot plate and the ground.

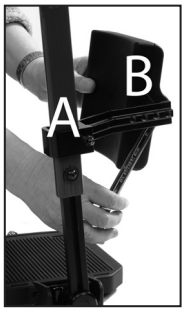
Ill. 6.9.7

While making the adjustment there must be no load on the foot plates.

Removing the foot support:

- Pull the plastic lock on the foot plate rearwards, so that the pin is released, and the foot plate can be folded up.
- Raise the foot support a few degrees.
- Release the foot support by pulling it slightly straight up.
- Swing the foot support outwards.
- Lift and remove the foot support. (ill. 6.9.8.).

Ill. 6.9.8



Ill. 6.9.9

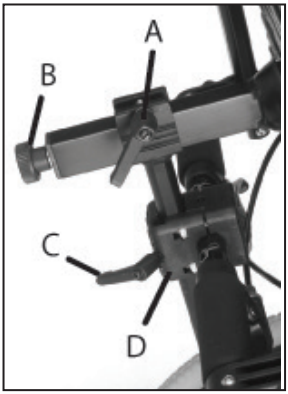
To adjust in depth, the calf pad is removed from the bracket by using an open-end spanner between the pad and the bracket. Find the required position and refix it. (Ill 6.9.9)

13 mm open-end spanner

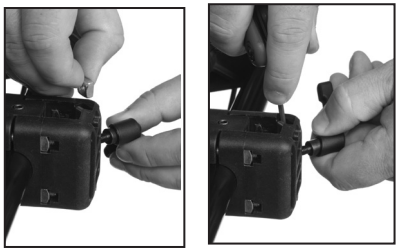
Never stand on the foot supports!

Never lift the wheelchair by the foot supports.

6.11 Head support



A - Lever for depth adjustment
B - Wheel for angle adjustment
C - Lever for height adjustment
D - Head support bracket



- Place the squared nut in the trace of the head support bracket as shown above.
- Place the head support in the head support bracket.
- The height and the depth of the head support is set to the required positions and tightened.

- The head support bracket is fixed by tightening the four screws two by two diagonally so the bracket is fixed with the same strength divided on the four screws.

Adjusting the head support in depth:

- Release the locking lever on top of the vertical bar (A).
- Adjust the head support and fix it in required position.

Adjusting the head support in height:
- Release the locking lever on the head support adapter (C).
- Adjust the head support and fix it in required position.

Adjusting the head support in angle:
- Release the adjustment wheel at the rear of the horizontal bar (B).
- Adjust the head support and fix it in required position.

Adjusting the head support sideways:
- The head support adapter can be moved both to the right and left, giving the possibility to accomodate special needs for head support.
- Untighten the four screws holding the adapter together.
- Move the adapter to the required position and fix the adapter by tightening the screws diagonally.

⚠ **Remember to release the levers when adjusting the head support.**

ⓘ **If the head support stand does not fit the bracket perfectly, the bracket is probably fixed too tight or unevenly.**

ⓘ **After fitting the head support fix it properly by tightening the little set screw in the centre on top of the head support bracket using an Allen-key.**

If the head support seems to short in height, it can be turned 80° by releasing the adjustment wheel at the rear of the horizontal bar (B) .

6.12 Arm support

- The arm supports are removable, height- and depth adjustable.

⚠ **Please be aware while mounting that there is a left-side and a right-side arm support.**

Mounting the arm support
- Grip the arrm support and pull straight up in a vertical direction from the insert sleeve.

ⓘ **Lock for the arm support can be ordered as an accessory.**

Adjusting the height of the arm support

- Untighten the screw on the arm support using a 6 mm Allen key.
- Raise or lower stem
- Tighten the screw

Never lift the chair holding onto the arm supports.

6.13 Adjusting the brakes

- The brakes are freely adjustable along the frame tube.
- To activate the brake, push the handle
- To release the brake, pull the handle rearwards .

- To reposition the brake, loosen the two screws on the inside of the brake clamp (Ill. 6.12.3).
- Adjust the brake position and tighten the screws.

- For fine adjustment, loosen the upper screw on the inside of the brakes (Ill. 6.12.4)
- Adjust the brake position and tighten the screw.

5 mm Allen key

Check that the brakes are correctly adjusted by activating the brakes and be sure that the wheelchair doesn't move.

The brakes are constructred as parking brakes and shall not be used as driving brakes.

Be aware of potential squeeze hazard between brake and tyre.

Drum brake

If the wheelchair is mounted with 12" or 16" main wheels, these will be equipped with drum brakes.

If the brake doesn't brake properly:
To adjust the wire on one or both sides, adjust the foot screw 2-4 rounds out. Then recheck the brakes.

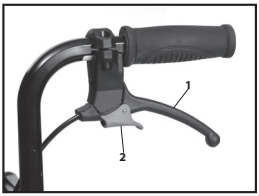
If the wire is too loose:
Adjust the foot screw all the way in. Tighten the wire by loosening the wire clamp before pulling the wire further through it. Tighten the wire clamp, and adjust the foot screw out again.

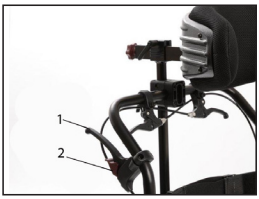
1 pc 10 mm open-end spanner.

To ensure the correct functions of the wire, these must never be taut.

Operating and applying the brake

The wheelbase in drum brake is fitted with hand operated hub brakes to allow regulation of speed on hills and whilst travelling along. These are located on the push handles.





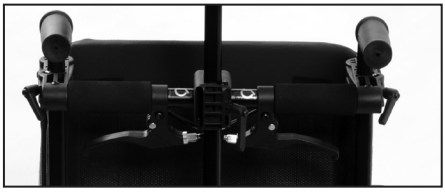
- To apply the brakes, pull the brake levers (1) evenly and smoothly towards handle and bring the wheel-base to a stop.
- For to put on and lock the parking brake (2) press the lever (1) against the push handle and lock the parking brake with the finger. Be sure that both parking brakes are locked.
- The parking brake will be released when you press the lever (1) against the push handle. It is locked with a spring and this will in this way be released.

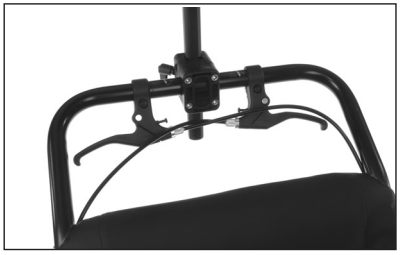
It is extremely important that the parking brakes are locked when the user is left sitting in the wheelchair.

Don't leave the user in the wheel-chair wihout to put the parking brake in function.

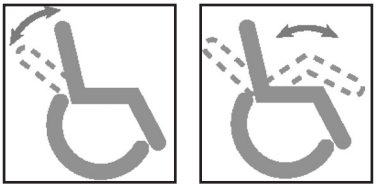
6.14 Seat angle/tilt

The seat angle is regulated using the release handle mounted on the push bow. The seat unit can be tilted from -5° to +20°





The release handles have the following labels:



Recline **Tilt**

⚠ **Risk for tipping.**
Check the position of anti tip.

⚠ **Do not leave the user in the wheelchair when it is tilted forward.**

6.15 Back rest angle

The back rest angle is regulated using the release handle mounted on the push bow. The angle can be regulated from 90° to 135°

⚠ **To ensure correct function of the wires, these must never be taut.**

⚠ **The seat and back rest angle must not be adjusted without using the anti tips.**

7. MANOEUVRING

7.1 General techniques

The weight and balance of the chair influences the manoevring qualities of the wheelchair. The weight, size and sitting position of the user are also influencing factors. The position of the wheels will in addition influence the manoevring qualities. The more weight placed over the main wheels, the easier it is to manoevre. If heavy weight is placed over the front castors, the chair will be heavy to manoeuvre.

Companion:

If the user is left alone in the wheelchair, always lock the brakes and check that the anti tips are turned down.

Parking:

Increase the underneath support of the wheelchair by moving the chair about 10 cm rearwards making the front castors turn forward.

7.2 Driving techniques - Step up-

Companions, drive up a step forwards:

- Check that the anti tip is turned up.
- Angle the wheelchair backwards.
- Balance the chair on the mainwheels and push it forward until the front castors are on the step.
- Lift the push handles while pushing the chair onto the step.

⚠ **Turn the anti tip downwards.**

Users, drive up a step backwards:

This technique is only useful if the step is very low. It also depends on the clearance between the foot plates and the ground.

- Check that the anti tip is turned up.
- Drive the chair backwards towards the step.
- Make a firm grip on the push rims and move the body forward while pulling.

⚠ **Turn the anti tip downwards.**

Companions, drive up a step backwards:

- Check that the anti tip is turned up
- Pull the chair backwards next to the step
- Angle the wheelchair backwards, moving the front castors slightly up in the air.
- Pull the wheelchair up the step and go backwards long enough to put down the front castors on the step.

⚠ **Turn the anti tip downwards**

7.3 Driving techniques - Step down-

Companions, drive down a step forwards:

- Check that the anti tip is turned up
- Angle the wheelchair backwards, moving the front castors slightly up in the air.
- Drive carefully down the step and angle the wheelchair forward putting the front castors back on the ground.

⚠ **Turn the anti tip downwards.**

Companions, drive down a step backwards:

- Check that the anti tip is turned up.
- Move the wheelchair backwards to the step.
- Drive carefully down the step and move the wheelchair backwards on the main wheel until the front castors have come away from the step.
- Put the front castors down on the ground.

⚠ **Turn the anti tip downwards.**

7.4 Driving techniques - Slope -

Important advise for driving down and up hill avoiding the risk of tipping.

⚠ **Avoid turning the wheelchair in the middle of a slope.**

⚠ **Always drive as straight as possible.**

⚠ **It is better to ask for assistance than taking risks.**

Driving uphill:
Move the upper part of the body forwards in order to maintain the balance of the chair

Driving downhill:
Move the upper part of the body backwards to maintain balance of the chair. Control the speed of the chair by clutching the push rims. Do not use the brakes.

7.5 Driving techniques - Up stairs -

⚠ **Always ask for assistance.**

⚠ **Never use escalators, even if assisted by a companion.**

With assistance, backwards.

- Check that the anti tip is turned up,
- Pull the wheelchair backwards to the first step of the stairs.
- Angle the wheelchair backwards on the main wheels.
- Pull the wheelchair slowly up the stair, one step at the time keeping the balance on the main wheel.
- Reaching the top of the stair, pull the wheelchair backwards far enough to put the front castors safely down on the floor.

⚠ **Turn the anti tip downwards.**

If two companions are present, one person can assist lifting in the front of the frame.

Do not lift the wheelchair holding onto the foot supports.

Do not lift the wheelchair holding onto the arm supports.

The companions should use the strength in their legs carrying the chair, avoiding unnecessary stress on the back.

7.6 Driving techniques - Down stairs -

⚠ **Never use escalators, even if assisted by a companion.**

With assistance, forwards

- Check that the anti tip is turned up
- Drive the wheelchair forward to the first step of the stair.
- Angle the wheelchair backwards on the main wheels.
- Have a firm grip on the push bow, and keep the balance on the main wheel taking one step at the time
- Reaching the bottom of the stair, put the front castors safely down on the floor.

⚠ **Turn the anti tip downwards.**

If two companions are present, one person can assist lifting in the front of the frame.

Do not lift the wheelchair holding onto the foot supports.

Do not lift the wheelchair holding onto the armrests.

7.7 Transfer

Techniques for transfering to/from the wheelchair should be practiced well with the persons involved. Here, we give some important advices for preparation of the chair:

With or without companion - sideways.
Before transfer:

- The wheelchair should be placed as close as possible to the destination of the transfer.
- Pull the wheelchair backwards 5-10 cm in order to make the front castors turn forward.
- Lock the brakes.
- Remove foot support and arm support on the side of the transfer.

With or without companion – forwards.
Before transfer:

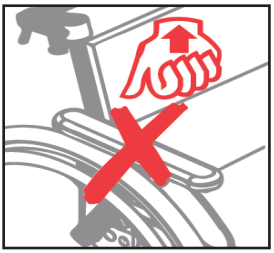
- The wheelchair should be placed as close as possible to the destination of the transfer.
- Pull the wheelchair backwards 5-10 cm in order to make the front castors turn forward.
- Lock the brakes.
- Tilt chair forward

Using a lift:
Before transfer to chair:
- Tilt the chair back
- Remove the head support
- Remove the foot supports
- Open the back rest angle slightly
- Replace the components when transfer is finished.

Never stand on the foot plates without making sure that they are touching the ground due to the risk of tipping the chair forwards.

7.8 Lifting the wheelchair

- The wheelchair should be lifted in the frame, and push bow only.

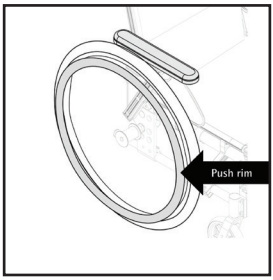


Never lift the wheelchair by the foot supports or arm supports

Don't lift the wheelchair with a user in it.

7.9 Push rim

Netti 4U comfort|CE/CES PLUS is delivered with aluminium push rims as standard. The material and distance to the main wheel influences the ability of the user to grip. Contact your dealer to get information about push rims that fit your chair.



Alternative push rims may give a better grip, but the friction may increase. When using the hands to stop the chair, the risk for burning of the hands increases.

A squeezing and trapping hazard of the fingers may occur when passing through narrow passages and if the fingers come between the spokes. To avoid this risk, we recommend spoke protectors as accessory.

If you want/need to change push rims or increase/decrease the distance between the push rims and the wheel, please contact your dealer

8. TRANSPORT

Netti 4U comfort|CE/CES PLUS is tested and approved to crash test ISO 7176-19 and can be used as a seat in a motor vehicle.

8.1 Folding for transport

When wheelchair is unoccupied, fold as described below. Put wheelchair in trunk or back seat. When placed in back seat, secure frame using safety belt.

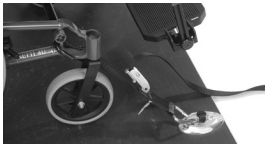
- Remove the head support (Chapt. 6.11)
- Turn the anti tips upwards (Chapt. 6.8)
- Remove the arm supports (Chapt. 6.12)
- Remove the foot supports (Chapt. 6.10)
- Pull out the locking bolt for the back rest, and place the back rest forward in the seat (Chapt. 6.5)
- Remove the main wheels (Chapt. 6.2)
- Remove the front castors (Chapt. 6.3)

8.2 Transport in car

If the head support is mounted correctly it is very stable but does not replace the need for an external neck support mounted in the car.

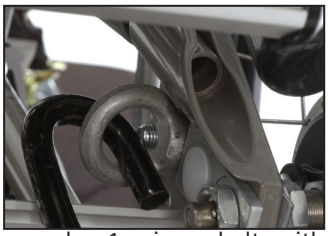
The chair is marked with stickers in 4 positions, showing where to fix the straps

Netti 4U comfort|CE PLUS has been successfully tested according to the requirement of ISO 7176-19 using a combined wheelchair an occupant restraint system W120/DISR developed by Unwin Safety Systems. For further information: www.unwin-safety.com



In front: Use hook or strap attachment.

Mount an "eye-bolt" in one of the holes in the wheel frame bracket. Hook on a hook/ carabine hook in the "eye-bolt"



Item number 1 pair eye bolts with bushing: 21074

The angle of the straps should be 0-45°

Netti 4U comfort|CE/CES PLUS has been crash tested without any power kit etc. If, at a later point of time a power kit, stair climber etc. is mounted this must be dismounted if the wheelchair is to be transported.

8.3 Travelling on public transport

The wheelchair should be put in a special area for wheelchairs. The wheelchair should face opposite the direction of travel. The back of the wheelchair must be located against a fixed object such as a row of seats or a partition. Make sure the user can easily reach any hand rails or handles.

9. MAINTENANCE

9.1 Maintenance instructions

The Netti chairs are built of modules. Alu Rehab carries stock of all parts and is ready to supply these on short notice. Necessary instructions for mounting will follow the parts.
Parts to be handled by user are defined in spare part catalogues that can be downloaded at www.alurehab.com. These parts can, if needed, also be removed and sent to manufacutrer/distributor upon request.
Parts related to wheel frame construction must be handled by manufacturer or authorized sercvice facility.

⚠ You can order original paint from Alu Rehab to repair scratches and minor damages to the paint: Please contact your dealer to order.

⚠ **If defects or damages occur, please contact your dealer.**

⚠ **Check/re-adjust screws and nuts at regular intervals.**

⚠ **Sand and sea water (salt used for gritting in the winter) can damage the bearings of the front castors and main wheels. Clean the wheelchair thouroughly after use.**

Frequency	Weekly	Monthly
Check defects/damages E.g. breakage/missing parts	X	
Washing of wheelchair		X
Oiling of bearings*		X
Washing of cushions		X
Check anti tip function		X
Check brake adjustment		X
Check tyre wear		X

* As a rule of thumb, use oil on movable parts and all bearings. Alu Rehab recommends use of ordinary bicycle oil

9.2 Cleaning and washing

1. Remove seat cushion before washing the wheelchair.
2. Clean cushion and cover according to instructions printed on cushions.

Cushion cleaning procedures

CORE	
Washing	Hand wash 40°C
Disinfection	Virkon S
	Auto clave 105°C
Drying	Squeeze
	Air dry standing edgewise
OUTER COVER	
Washing	Machine wash 60°C
Drying	Tumble dry max 85°C

3. Clean frame using water and a rag.
4. If jet water washing, avoid pointing directly towards gas springs, labels and back cushion.
5. We recommend using soft soap.

6. Wash the wheelchair well using clean water to remove all the soap.
7. Use methylated spirit to remove any dirt left.

Disinfection of the wheelchair

Remove cushions (See separate washing instructions).
Use a soft rag, added with Hydrogenperoxide or technical alcohol (Isopropanol).
Hydrogenperoxide recommended : NU-CIDEX "Johnson&Johnson"

We recommend washing the wheelchair in washing chamber at >85° C.

For small damages to the surface, original surface paint can be ordered from the manufacturer.

10. TABLE VITAL MEASURES

Netti 4U comfort|CE PLUS / CES PLUS

Netti 4U comfort	CE PLUS	CE PLUS	CES PLUS	CES PLUS
Specification	min.	max	min	max
Overall length with foot support	1100 mm	-	1050 mm	
Overall width	530 mm	680 mm	530 mm	680 mm
Reversing / Pivot width	1400 mm	-	1200 mm	
Folded length	660 mm	-	610 mm	
Folded width	630 mm	-	630 mm	
Folded height	600 mm	-	600 mm	
Total mass	29 kg	-	27 kg	
Mass heaviest part	2,5 kg	-	2,5 kg	
Maximum safe slope	-	8°	-	8°
Sear plane angel	-5°	20°	-5°	20°
Effective seat depth	425 mm	500 mm	375 mm	450 mm
Effective seat width	350 mm	500 mm	350 mm	500 mm
Seat surface height at front	465 mm	500 mm	465 mm	500 mm
Backrest angle	90°	-135°	90°	-135°
Backrest height	500 mm	-	500 mm	-
Foot support to seat distance	280 mm	770 mm	280 mm	770 mm
Leg to seat surface angle	105°	182°	105°	182°
Arm support to seat distance	270 mm	360 mm	270 mm	360 mm
Front location of arm support structure	395 mm	395 mm	395 mm	395 mm
Push rim diameter	535 mm	-	535 mm	-
Horizontal axle location	-50 mm	25 mm	-50 mm	25 mm

Measures CE model: 500 mm. Measured without cushions
Measures CES model: 350 mm. Measured without cushions

11. TROUBLESHOOTING

Symptom	Reason/Action	Reference in manual
The wheelchair is going askew	• The main wheel hubs might be incorrectly mounted • One of the brakes might be too tight • The user is sitting very askew in the chair • The user might be stronger on one side than the other	**6.2** **6.13**
The wheelchair is heavy to manoeuvre	• The main wheel hubs might be incorrectly mounted • Clean the front castors and forks for dirt • Too much weight over the front castors	**6.2**
The wheelchair is hard to turn	• Check that the front castors are not fixed too hard • Clean the front castors and forks for dirt • Check, that the front castors are placed in correct position	**6.3** **6.3**
The main wheels are difficult to take off and put on.	• Clean and grease the quick release • Adjust hub bushing further out from the frame	**6.2** **6.4**
The brakes are not functioning well	• Adjust the brake	**6.13**
The wheelchair feels "shaky"	• Check screws and adjustment points in general	

Please contact your dealer for information about authorized service facilities that can give support if solution is not reached in this form.

When in need of spare parts, please contact your dealer.

When making changes affecting frame construction, contact dealer / manufacturer for confirmation.

12. TESTS & WARRANTY

12.1 Tests

Netti 4U comfort|CE PLUS is tested and has been approved for usage both indoors and outdoors. The chair is CE marked.

Maximum user weight: 135 kg

It is tested by TÜV SÜD Product Service GmbH according to DIN EN 12183: 2009.

Crash tested at Millbrooke Proving Ground, Bedford UK, according to ISO 7176-19

Seating system is tested for fire resistance according to: ISO 7176-16

12.2 Guarantee

Alu Rehab is providing you with a 5-year guarantee on all frame components and on the cross-tube assembly. There is a 2-year guarantee on all other components except batteries. Alu Rehab is not responsible for any damage resulting from inappropriate or unprofessional installation and/or repairs, neglect, wear, from changes in wheelchair assemblies or institutions not approved by Alu Rehab or by use of spare parts delivered or produced by third parties. In such cases, this guarantee shall be considered null and void.

On the frame you will find a label with unique identification number.

12.3 Claim

- Claim is to be addressed to the sales agent of the wheelchair. Please note that sales documentation has to be filled in and signed correctly in order to document time and and place of the purchase of the wheelchair.
- Generally, defects are accepted as reason for claims. The sales agent and Alu Rehab are to decide whether a defect has to be repaired, or the customer is entitled to a reduced prize due to the defect.
- This decision is based on an evaluation of defect. 14 days after receiving a claim, the customer receives a report from the sales agent and/or Alu Rehab are going to handle the defect.
- Claim are to be forwarded as soon as a defect is discovered.

Normal wear, incorrect use or incorrect handling is not a reason for claims.

The user is to use, maintain and handle the wheelchair as described in the user manual.

12.4 Spare part guarantee

- Alu Rehab offers a 5-year guarantee (as a minimum) for spare parts. The periode of guarantee is defined as beginning at the date, Alu Rehab cancels the production of a specified type of chair.
- During the periode of spare part guarantee, spare parts are delivered within 14 days.
- During the periode of spare part guarantee, Alu Rehab offers a 1 year guarantee for defect spare parts.

12.5 Special adjustment/ adaptations

Special adjustments/adaptations are defined as all adjustments that are not included in this manual. Wheelchairs that are especially adjusted/adapted by the customer can not keep the CE mark given by Alu Rehab A.S Norway. If this is the case, the warranty given by Alu Rehab A.S Norway will not be valid.
If any uncertainty about special fitting and adaptations, please contact Alu Rehab A.S.

12.6 Combinations with other products

Combinations of Netti and other products not manufactured by Alu Rehab A.S
Generally in these cases, the CE mark of all the products involved will not be valid.
However, Alu Rehab A.S has made agreements with some manufacturers about some combinations.

For further information, please contact your dealer or Alu Rehab A.S Norway directly.

12.7 Service and repair

Information about service and repair services in you area, please contact your local dealer.

A unique identification number / serial number is to be found on the bottom frame on left side of the chair.

A spare part catalogue for the wheelchair can be obtained through your local dealer or downloaded at www.alurehab.com

A refurbisment manual for the wheelchair can be obtained through your local dealer or downloaded at www.alurehab.com

13. MEASURES & WEIGHT

	Seat width*	Seat depth**	Back rest heigh ***	Total width	Transport width	Weight
CES	350mm	375-450mm	500mm	530mm	480mm	27 kg
CES	400mm	375-450mm	500mm	580mm	530mm	27,5 kg
CES	450mm	375-450mm	500mm	630mm	580mm	28 kg
CES	500mm	375-450mm	500mm	680mm	630mm	28,5 kg
CE	350 mm	425-500 mm	500 mm	530 mm	480 mm	27,5 kg
CE	400 mm	425-500 mm	500 mm	580 mm	530 mm	28 kg
CE	450 mm	425-500 mm	500 mm	630 mm	580 mm	28,5 kg
CE	500 mm	425-500 mm	500 mm	680 mm	630 mm	29 kg

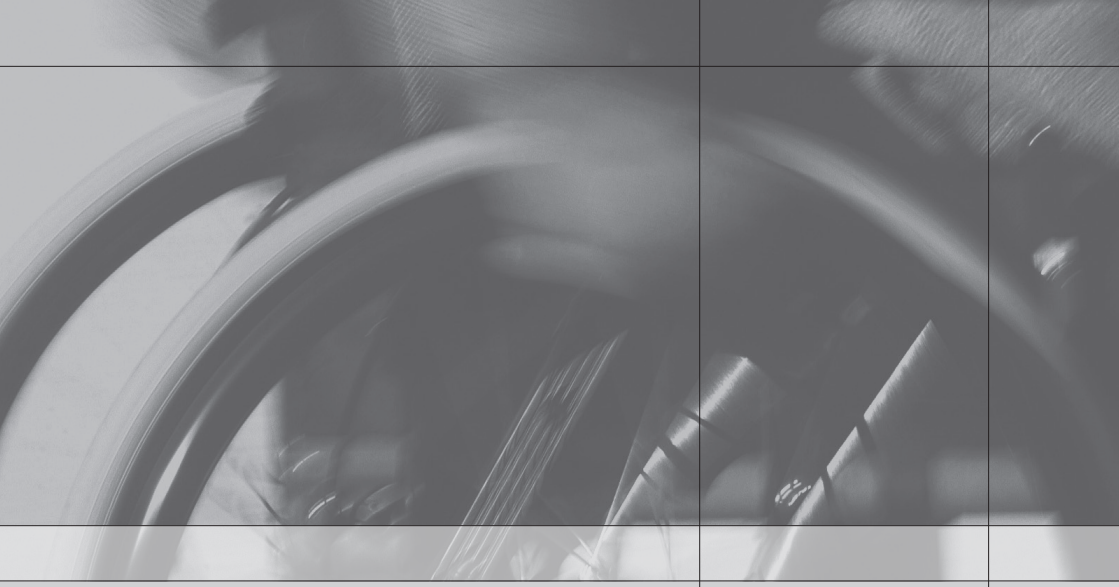
* Measured between skirt guards.
** Measured from front of seat plate to back rest hinge.
*** Measured from from seat plate to top of back rest.

The weight is including main wheels, front castors, foot supports and arm supports. No cushion.

Max user weight is 135 kg.

When mounting accessories such as power kit etc, the weight of the accessories must be subtracted from the max user weight.

Dealer:	
Serial no.:	
Date supplied:	
Dealer stamp:	



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